

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A multi-layer circuit board, comprising:
at least one signal trace disposed on a dielectric layer, wherein the at least one signal trace comprises a first width that is wider than a second width; and wherein the first width of at least one signal trace is located in a signal trace anti-pad region, wherein the signal trace anti-pad region extends from the center of the via to slightly past the edge of an anti-pad region; and

at least one via electrically connected to the first width of the at least one signal trace, wherein an impedance discontinuity between the at least one signal trace and a component electrically connected to the at least one via is lowered from above about 5 ohms to less than about 1 ohm.

2. (Original) The multi-layer circuit board of claim 1 wherein the ratio of the first width to the second width is between about 2:1 and 3:1.

3. (Cancelled)

4. (Original) The multi-layer circuit board of claim 1 wherein the second width of the at least one signal trace is located in a ground plane region, wherein the ground plane region extends from slightly past the edge of an anti-pad region to the end of the signal trace opposite the first width of the signal trace.

5. (Original) The multi-layer circuit board of claim 1 wherein the signal trace further comprises a via pad.
6. (Original) The multi-layer circuit board of claim 1 wherein the first width of the at least one signal trace is not substantially disposed over a ground plane.
7. (Cancelled)
8. (Currently amended) A test structure, comprising:
at least one signal trace disposed on a dielectric layer, wherein the at least one signal trace comprises a first width that is wider than a second width; and wherein the first width of at least one signal trace is located in a signal trace anti-pad region, wherein the signal trace anti-pad region extends from the center of the via to slightly past the edge of an anti-pad region;
a via connected to the first width of the at least one signal trace; and
a component electrically attached to the via, wherein an impedance discontinuity between the at least one signal trace and the component is lowered from above about 5 ohms to below about 1 ohm.
9. (Original) The test structure of claim 8 wherein the ratio of the first width to the second width is between about 2:1 and 3:1.

10. (Currently amended) The test structure of claim 8, wherein ~~the first width is located in a signal trace anti-pad region, and~~ the second width is located in a ground plane region.
11. (Previously presented) The test structure of claim 8 wherein the at least one signal trace is not substantially disposed over an underlying ground plane in a signal trace anti-pad region.
12. (Original) The test structure of claim 8 wherein the component is one of a SMA, BNC or SIP connector.
13. (Original) The test structure of claim 8 wherein the component is one of a socket, a microprocessor, or a circuit component.
14. (Cancelled)
15. (Original) The test structure of claim 8, wherein the component is adapted for receiving a signal.
16. (Previously presented) The test structure of claim 15, wherein the signal is launched through a probe and a signal output is coupled to the component.

17. (Original) The test structure of claim 15, wherein the signal has a frequency of above about 5 Gigahertz.
18. (Currently amended) A test system, comprising:
a TDR probe including a signal output and a signal ground;
at least one ground pad disposed on a dielectric layer, wherein the ground pad is coupled to the signal ground;
at least one signal trace disposed on the dielectric layer, wherein the at least one signal trace comprises a first width that is wider than a second width; and wherein the first width of at least one signal trace is located in a signal trace anti-pad region, wherein the signal trace anti-pad region extends from the center of the via to slightly past the edge of an anti-pad region; and
a component electrically connected to the first width of the at least one signal trace, wherein the component is coupled to the signal output, and wherein an impedance discontinuity between the at least one signal trace and the component is lowered from above about 5 ohms to less than about 1 ohm.
19. (Original) The test system of claim 18 wherein the ratio of the first width to the second width is between about 2:1 and 3:1.
20. (Original) The test system of claim 18 wherein the component is a SMA connector.

21. (Original) The test system of claim 18 wherein the TDR probe comprises a TDR probing system.
22. (Cancelled)
23. (Currently amended) A method of forming a test structure, comprising:
forming a signal trace on a dielectric layer, wherein the signal trace comprises a first width that is wider than a second width; and wherein the first width of at least one signal trace is located in a signal trace anti-pad region, wherein the signal trace anti-pad region extends from the center of the via to slightly past the edge of an anti-pad region;
electrically connecting a via to the first width of the signal trace; and
electrically connecting a component to the via, wherein an impedance continuity between the signal trace and the component is lowered from above about 5 ohms to below about 1 ohm.
24. (Original) The method of claim 23 wherein forming the signal trace comprises forming the first width of the signal trace to be wider than the second width by a ratio of between about 2:1 to about 3:1.
25. (Cancelled)